

CLAIMS

- 1    1.    A container for storing an item comprising:
  - 2                an insulating material defining an interior, the insulating material comprising a bio-based
  - 3                polyurethane; and
  - 4                a temperature-maintaining material disposed within the interior, the temperature-
  - 5                maintaining material being arranged to maintain a temperature of an item placed with the
  - 6                interior.
- 1    2.    The method of claim 1, further comprising an outer shell located about at least a portion  
2                of the exterior of the insulating material.
- 1    3.    The container of claim 2, wherein the outer shell has a lid and at least one opening for  
2                providing access to the interior, the lid being movable between an open position and a closed  
3                position, in the closed position the outer shell encasing the interior, in the open position the lid  
4                providing access to the interior.
- 1    4.    The container of claim 2, wherein the outer shell and the insulating material comprise the  
2                bio-based polyurethane, the polyurethane being configured with a foamed portion and a hardened  
3                outer skin, the insulating material corresponding to the foamed portion, the outer shell  
4                corresponding to the hardened outer skin.

- 1    5.    The container of claim 2, wherein the outer shell comprises cardboard.
- 1    6.    The container of claim 2, wherein the outer shell, the insulating material, and the  
2    temperature-maintaining material are biodegradable.
- 1    7.    The container of claim 2, wherein the outer shell is a portion of a vehicle.
- 1    8.    The container of claim 1, wherein the temperature-maintaining material comprises a  
2    super-absorbent.
- 1    9.    The container of claim 1, wherein the bio-based polyurethane comprises starch.
- 1    10.   The container of claim 1, wherein the bio-based polyurethane comprises limestone.
- 1    11.   The container of claim 1, wherein the bio-based polyurethane comprises vegetable oil.
- 1    12.   The container of claim 1, wherein the bio-based polyurethane comprises castor oil.
- 1    13.   The container of claim 1, wherein the bio-based polyurethane comprises soybean oil.
- 1    14.   The container of claim 1, wherein the bio-based polyurethane comprises palm oil.

- 1 15. The container of claim 1, wherein the bio-based polyurethane comprises peanut oil.
- 1 16. The container of claim 1, wherein the bio-based polyurethane comprises rap seed oil.
- 1 17. The container of claim 1, wherein the bio-based polyurethane comprises cotton seed oil.
- 1 18. The container of claim 1, wherein the bio-based polyurethane comprises sunflower oil.
- 1 19. The container of claim 1, wherein the bio-based polyurethane comprises linseed oil.
- 1 20. The container of claim 1, wherein the bio-based polyurethane comprises lard.

1    21.    A method comprising:  
2                 providing a container, the container having:  
3                         an insulating material defining an interior, the insulating material  
4                         comprising a bio-based polyurethane; and  
5                         a temperature-maintaining material disposed within the interior, the  
6                         temperature-maintaining material being arranged to maintain a temperature of an item  
7                         placed with the interior.

1    22.    The method of claim 21, further comprising:  
2                 placing an item within the interior of the container.

1    23.    The method of claim 22, further comprising:  
2                 transporting the container with the item stored therein.

1    24.    The method of claim 23, further comprising:  
2                 freezing the temperature-maintaining material prior to transporting the container with the  
3                 item stored therein.

1    25.    The method of claim 22, wherein, in transporting the container, the container is  
2                 transported via ground transportation.

1    26.    The method of claim 25, further comprising:

2                cooling the transport volume.

1    27.    The method of claim 25, wherein:

2                the method additionally comprises providing a refrigeration unit; and

3                cooling the transport volume is accomplished using the refrigeration unit.

1    28.    The method of claim 23, wherein, in transporting the container, the container is located

2                within in a transport volume, the transport volume being defined, at least in part, by an insulating

3                material comprising a bio-based polyurethane.

1    29.    The method of claim 21, wherein, in providing a container, the container is a portion of a

2                vehicle that is operative to transport the container with the item stored therein.

1    30.    The method of claim 21, wherein at least a portion of the temperature –maintaining

2                material is air; and

3                further comprising cooling at least a portion of the air during transport.

1    31.    The method of claim 22, wherein, in providing the container, the container is

2                manufactured in a vicinity of the item.